

WHAT IS CLAIMED IS:

1. A method of verifying a transaction conducted between a first party and a second party, the method comprising:

receiving transaction elements of the transaction;

5 identifying at least a portion of the received transaction elements as selected elements;

encrypting the selected elements based on a private key of the first party to generate an encrypted code;

10 printing at least a portion of the received transaction elements on a hard copy transaction certificate;

printing the encrypted code on the hard copy transaction certificate;

15 sending the transaction certificate with the encrypted code to the second party; and

instructing the second party to scan the transaction certificate to convert the encrypted code to electronic form, and to decrypt the encrypted code in electronic form based on a public key of the first party to generate decrypted selected elements,

wherein the decrypted selected elements can be used by the second party to prove the transaction.

20 2. The method of Claim 1, further comprising:

prompting the second party to enter transaction elements of the transaction on an electronic transaction document;

wherein receiving transaction elements comprises receiving transaction elements entered by the second party on the electronic transaction document.

25 3. The method of Claim 1, further comprising identifying an element of a current date and time as one of the selected elements.

4. A method of verifying a transaction conducted between a first party and a second party, the method comprising:

receiving transaction elements of the transaction;

30 identifying at least a portion of the received transaction elements as selected elements;

attaching at least a portion of the received transaction elements to a certificate template;

encrypting the selected elements based on a private key of the first party to generate an encrypted code;

5 attaching the encrypted code to the certificate template to produce a transaction certificate;

transmitting the transaction certificate with the encrypted code to the second party; and

10 instructing the second party to decrypt the encrypted code of the transaction certificate based on a public key of the first party to generate decrypted selected elements,

wherein the decrypted selected elements can be used by the second party to prove the transaction.

5. The method of Claim 4, further comprising:

15 prompting the second party to enter transaction elements of the transaction on an electronic transaction document;

wherein receiving transaction elements comprises receiving transaction elements entered by the second party on the electronic transaction document.

20 6. The method of Claim 4, wherein transmitting the transaction certificate comprises sending the transaction certificate to an email address of the second party.

7. The method of Claim 4, wherein transmitting the transaction certificate comprises sending an URL of the transaction certificate to an email address of the second party.

25 8. The method of Claim 4, further comprising identifying an element of a current date and time as one of the selected elements.

9. A method of verifying a transaction conducted between a first party and a second party, the method comprising:

receiving transaction elements of the transaction;

30 identifying at least a portion of the received transaction elements as selected elements;

attaching at least a portion of the received transaction elements to a certificate template;

encrypting the selected elements based on a private key of the first party to generate an encrypted code;

5 attaching the encrypted code to the certificate template to produce a transaction certificate;

retrieving a public key of the second party;

encrypting the transaction certificate based on the retrieved public key of the second party, to generate an encrypted transaction certificate;

10 transmitting the encrypted transaction certificate to the second party;

instructing the second party to decrypt the transmitted encrypted transaction certificate based on a private key of the second party, to produce a decrypted transaction certificate that includes the encrypted code; and

15 instructing the second party to decrypt the included encrypted code based on a public key of the first party to generate decrypted selected elements,

wherein the decrypted selected elements can be used by the second party to prove the transaction.

10. The method of Claim 9, further comprising:

20 prompting the second party to enter transaction elements of the transaction on an electronic transaction document;

wherein receiving transaction elements comprises receiving transaction elements entered by the second party on the electronic transaction document.

25 11. The method of Claim 9, wherein transmitting the encrypted transaction certificate comprises sending the encrypted transaction certificate to an email address of the second party.

12. The method of Claim 9, wherein transmitting the encrypted transaction certificate comprises sending an URL of the encrypted transaction certificate to an email address of the second party.

30 13. The method of Claim 9, further comprising identifying an element of a current date and time as one of the selected elements.

14. A method of verifying a transaction conducted between a first party and a second party, the method comprising:

transmitting transaction elements of the transaction to the first party;

receiving a hard copy transaction certificate that includes an encrypted

5 code;

scanning the received transaction certificate to convert the encrypted code to electronic form;

retrieving a public key of the first party; and

decrypting the converted encrypted code based on the retrieved public

10 key of the first party to generate decrypted proof elements,

wherein the decrypted proof elements are used to prove the transaction.

15. A method of verifying a transaction conducted between a first party and a second party, the method comprising:

transmitting transaction elements of the transaction to the first party;

15 receiving a transaction certificate that includes an encrypted code;

retrieving a public key of the first party; and

decrypting the included encrypted code based on the retrieved public key of the first party to generate decrypted proof elements,

wherein the decrypted proof elements are used to prove the transaction.

20 16. A method of verifying a transaction conducted between a first party and a second party, the method comprising:

making a public key of the second party available to the first party;

transmitting transaction elements of the transaction to the first party;

receiving an encrypted transaction certificate;

25 decrypting the received encrypted transaction certificate based on a private key of the second party so as to generate a transaction certificate with an encrypted code;

retrieving a public key of the first party; and

decrypting the encrypted code based on the retrieved public key of the

30 first party to generate decrypted proof elements,

wherein the decrypted proof elements are used to prove the transaction.

17. A method of a third party authenticating a transaction conducted between a first party and a second party, the method comprising:

receiving a hard copy transaction certificate with an encrypted code;

scanning the received transaction certificate to convert the encrypted
code into electronic form;

retrieving a public key of the first party;

decrypting the converted encrypted code based on the retrieved public
key of the first party to generate decrypted proof elements; and

declaring the transaction including the decrypted proof elements as
authenticated if the decrypting is successful.

18. A method of a third party authenticating a transaction conducted between a first party and a second party, the method comprising:

receiving a transaction certificate with an encrypted code;

retrieving a public key of the first party;

decrypting the encrypted code based on the retrieved public key of the
first party to generate decrypted proof elements; and

declaring the transaction including the decrypted proof elements as
authenticated if the decrypting is successful.

19. A method of a third party authenticating a transaction conducted between a first party and a second party, the method comprising:

receiving an encrypted transaction certificate;

decrypting the received encrypted transaction certificate based on a
private key of the third party so as to generate a transaction certificate with an
encrypted code;

retrieving a public key of the first party;

decrypting the encrypted code based on the retrieved public key of the
first party to generate decrypted proof elements; and

declaring the transaction including the decrypted proof elements as
authenticated if the decrypting is successful.

20. A computing device for verifying a transaction conducted between a first party and a second party, the device comprising:

a receiving module configured to receive transaction elements of the transaction from the second party;

an attachment module configured to attach at least a portion of the received transaction elements to a certificate template;

5 a first encryption module configured to identify at least a portion of the received transaction elements as selected elements, to encrypt the selected elements based on a private key of the first party to generate an encrypted code, and to attach the encrypted code to the certificate template to produce a transaction certificate; and

10 a transmission module configured to transmit the transaction certificate from the first party to the second party,

wherein the encrypted code attached to the transaction certificate can be decrypted by the second party to prove the transaction.

21. A computing device for verifying a transaction conducted between a first
15 party and a second party, the device comprising:

a receiving module configured to receive transaction elements of the transaction from the second party;

20 a first encryption module configured to identify at least a portion of the received transaction elements as selected elements, to encrypt the selected elements based on a private key of the first party to generate an encrypted code, and to attach the encrypted code and at least a portion of the received transaction elements to a transaction certificate;

25 a second encryption module configured to encrypt the transaction certificate based on a public key of the second party to generate an encrypted transaction certificate; and

a transmission module configured to transmit the encrypted transaction certificate from the first party to the second party,

30 wherein the encrypted transaction certificate can be decrypted by the second party based on a private key of the second party to generate a decrypted transaction certificate with the encrypted code, wherein the encrypted code can be decrypted based on a public key of the first party to generate decrypted

selected elements, and wherein the decrypted selected elements can be used to prove the transaction.

22. A computing device for verifying a transaction conducted between a first party and a second party, the device comprising:

5 a submitting module configured to submit transaction elements of the transaction from the second party to the first party;

a receiving module configured to receive a transaction certificate including an encrypted code from the first party to the second party; and

10 a first decryption module configured to decrypt the encrypted code to generate decrypted proof elements, based on a public key of the first party, wherein the decrypted proof elements are used to prove the transaction.

23. A computing device for verifying a transaction conducted between a first party and a second party, the device comprising:

15 a submitting module configured to submit transaction elements of the transaction from the second party to the first party;

a receiving module configured to receive an encrypted transaction certificate from the first party to the second party;

20 a first decryption module configured to decrypt the received encrypted transaction certificate, based on a private key of the second party, to generate an decrypted transaction certificate with an encrypted code; and

a second decryption module configured to decrypt the encrypted code based on a public key of the first party to generate decrypted proof elements, wherein the decrypted proof elements are used to prove the transaction.

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